IN THE SPECIFICATION

Please replace the paragraph beginning at page 3, line 7 and ending at page 4, line 5, with the following.

--As for the methods of solving these problems, there are the ink jet recording systems and record heads disclosed by Japanese Patent Application Laid-Open No. 54-161935, Japanese Patent Application Laid-Open No. 61-185455, Japanese Patent Application Laid-Open No. 61-249768 and Japanese Patent Application Laid-Open No. 4-10941. To be more specific, the ink jet recording systems disclosed by the above patents laid-open have a structure wherein the electrothermal converting element is driven by a recording signal and the bubbles thereby generated [[is]] are aerated to the outside air. It is possible, by adopting the ink jet recording systems, to stabilize the volume of the flying ink droplets and discharge a minute amount of the ink droplets at high speed. And it becomes possible, by resolving the cavitation generated on disappearance of the bubbles, to improve durability of the heater so as to easily obtain a further high-definition image. As for the structure for having the bubbles communicate with the outside air in the above patents laid-open, there is a named structure for significantly reducing the shortest distance between the electrothermal converting element for generating the bubbles in the ink and a discharge port which is an opening for discharging the ink compared to the past.--

Please replace the paragraph beginning at page 4, line 6 and ending at page 5, line 4, with the following.

--The structure of the record head of this type will be described hereafter. It has an element substrate on which the electrothermal converting element for discharging the ink is

provided and a flow path composition substrate (also referred to as [[an]] a discharge port substrate) joined with the element substrate to constitute [[a]] flow [[path]] paths of the ink. The flow path composition substrate has a plurality of nozzles through which the ink flows, a supply chamber for supplying the ink to each of the nozzles, and a plurality of discharge ports which are nozzle end openings for discharging the ink droplets. The nozzle is comprised of a bubbling chamber in which bubbles are generated by the electrothermal converting element and a supply path for supplying the ink to the bubbling chamber. The element substrate has the electrothermal converting element provided to be located in the bubbling chamber. The element substrate also has a supply port provided for supplying the ink to the supply chamber from the rear surface on the opposite side of the principal surface in contact with the flow path composition substrate. And the flow path composition substrate has the discharge ports provided at positions opposed to the electrothermal converting elements on the element substrate.--

Please replace the paragraph beginning at page 5, line 17 and ending at page 6, line 17, with the following.

--Incidentally, as for the record head described above, when discharging the ink, the flow of the ink filled in the bubbling chamber is divided into the discharge port side and the supply path side by the bubbles growing in the bubbling chamber. At that time, a pressure due to bubbling of a fluid slips away to the supply path side, or a pressure loss occurs due to friction with an inner wall of the discharge port. This phenomenon causes adverse effects on discharge, and it tends to become conspicuous as a liquid droplet becomes smaller. To be more specific, as a discharge caliber is rendered smaller in order to make a small liquid droplet, resistance of a first

discharge port portion becomes extremely high so that a flow rate in the discharge port direction decreases and the flow rate in the flow path direction increases, resulting in reduced discharge speed of the ink droplet. It is possible, as a means for solving this problem, to provide a second discharge port portion ~~of which~~ whose cross-sectional area vertical to the flow is larger than the discharge port and thereby to lower the entire flow resistance in the discharge port direction so that bubbling grows with less pressure loss in the discharge port direction. Thus, it is feasible to curb the flow rate slipping away in the flow path direction and prevent the reduction in the discharge speed of the ink droplet.--

Please replace the paragraph beginning at page 7, line 17 and ending at line 25, with the following.

--Thus, to achieve the present invention, the inventors hereof have solved the above-mentioned problem as to the thickening by adopting a structure wherein sufficient liquid is held in the proximity of the discharge port, and [[has]] they have found the structure of the second discharge port portion having little stagnation and possessing sufficient discharge characteristics when having secured sufficient volume of the second discharge port portion.--

Please replace the paragraph beginning at page 9, line 20 and ending at page 10, line 12, with the following.

--It is possible, by the above-mentioned record head structure, to provide an ink jet head capable of reducing the effects due to the thickening of the ink in the discharge port portion during standby, recording an image having few variations in the discharge characteristics

and possessing high definition. It can also curb the meniscus vibrations. To be more specific, when the liquid rushes in the discharge port direction while refilling, a liquid flow close to a wall surface of the above-mentioned second discharge port portion is bent along a [[curve]] curved portion and has a flow rate for colliding almost vertically with a refilling mainstream in a direction vertical to the above described element substrate so that a rush speed into the discharge port of the refilling mainstream in the direction vertical to the above described element substrate is reduced so as to consequently attenuate the meniscus vibrations (refer to Fig. 6, illustrating a schematic sectional view similar to Figs. 2B, 3B, 4B and 5B).--

Please replace the paragraph beginning at page 12, line 3 and ending at line 16, with the following.

--An ink jet record head according to the present invention is a record head specifically adopting a system, of the ink jet recording systems, having a means for generating thermal energy as energy utilized for discharging liquid ink and causing a ~~status~~ change of state of the ink with the thermal energy. It attains higher density and higher definition of characters and images to be recorded. In particular, according to the present invention, an electrothermal converting element is used as means for generating the thermal energy, and the ink is discharged by utilizing a pressure due to bubbles generated when heating and film-boiling the ink with the electrothermal converting element.--

Please replace the paragraph beginning at page 17, line 1 and ending at line 10, with the following.

--Furthermore, in the sectional view thereof, a height L in the vertical direction to the principal surface of the above described element substrate of the second discharge port portion 10 is smaller than a length [[I]] l from a perpendicular line drawn down from the center of the discharge port 4 to the above described element substrate to an outermost circumference of the second discharge port portion 10 in the direction parallel with the principal surface of the above described element substrate.--

Please replace the paragraph beginning at page 19, line 6 and ending at line 21, with the following.

--As shown in Fig. 6, if the form as above is adopted, it happens that, on refilling wherein the ink rushes in the discharge port direction due to capillary force after the bubbles communicate with the air, an ink flow close to the wall surface of the above-mentioned second discharge port portion 10 becomes an entraining flow A curved along a [[curb]] curved portion and has a flow speed for almost vertically colliding with a mainstream B of a refill in the vertical direction to the above described element substrate having the heaters 1 formed on its principal surface. Then, it has the effects of reducing the speed of the refill mainstream in the vertical direction to the above described element substrate rushing into the discharge port 4 and attenuating meniscus vibrations.--

Please replace the paragraph beginning at page 23, line 25 and ending at page 24, line 13, with the following.

--As shown in Fig. 6, if the form as above is adopted, it happens that, on refilling wherein the ink rushes in the discharge port direction due to the capillary force after the bubbles communicate with the air, the ink flow close to the wall surface of the above-mentioned second discharge port portion 10 becomes the entraining flow A curved along the [[curb]] curved portion and has the flow speed for almost vertically colliding with the mainstream B of the refill in the vertical direction to the above described element substrate having the heaters 1 formed on its principal surface. Then, it has the effects of reducing the speed of rushing into the discharge port 4 of the refill mainstream in the vertical direction to the above described element substrate and attenuating the meniscus vibrations.--

Please replace the paragraph beginning at page 28, line 24 and ending at page 29, line 12, with the following.

--As shown in Fig. 6, if the form as above is adopted, it happens that, on refilling wherein the ink rushes in the discharge port direction due to the capillary force after the bubbles communicate with the air, the ink flow close to the wall surface of the above-mentioned second discharge port portion 10 becomes the entraining flow A curved along the [[curb]] curved portion and has the flow speed for almost vertically colliding with the mainstream B of the refill in the vertical direction to the above described element substrate having the heaters 1 formed on its principal surface. Then, it has the effects of reducing the speed of rushing into the discharge port 4 of the refill mainstream in the vertical direction to the above described element substrate and attenuating the meniscus vibrations.--

Please replace the paragraph beginning at page 33, line 23 and ending at page 34, line 11, with the following.

--As shown in Fig. 6, if the form as above is adopted, it happens that, on refilling wherein the ink rushes in the discharge port direction due to the capillary force after the bubbles communicate with the air, the ink flow close to the wall surface of the above-mentioned second discharge port portion 10 becomes the entraining flow A curved along the [[curb]] curved portion and has the flow speed for almost vertically colliding with the mainstream B of the refill in the vertical direction to the above described element substrate having the heaters 1 formed on its principal surface. Then, it has the effects of reducing the speed of rushing into the discharge port 4 of the refill mainstream in the vertical direction to the above described element substrate and attenuating the meniscus vibrations.--

Please replace the paragraph beginning at page 35, line 27 and ending at page 36, line 12, with the following.

--On refilling wherein the ink rushes in the discharge port direction, the ink flow close to the wall surface of the above-mentioned second discharge port portion becomes curved along the [[curb]] curved portion and has the flow speed for almost vertically colliding with the mainstream of the refill in the vertical direction to the above described element substrate. Therefore, the speed of rushing into the first discharge port portion of the refill mainstream in the vertical direction to the above described element substrate is reduced and the meniscus vibrations are consequently attenuated so that it can be safely discharged.--